SITE ASSESSMENT REPORT
FOR
WINDHAM ALLOYS SITE
WINDHAM, PORTAGE COUNTY, OHIO
TDD: S05-9908-004
PAN: 9G0401SIXX
OCUMENT CONTROL NUMBER: START-05-23-050

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DOCUMENT CONTROL NUMBER: START-05-23-05097

October 20, 1999

Prepared for:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Emergency Response Branch
77 West Jackson Boulevard
Chicago, Illinois 60604

Prepared by: _____ Date: 10·20·99
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Reviewed and
Approved by: _____ Date: 10·20·99
Anne A. Busher, START Assistant Program Manager

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1. Introduction

The United States Environmental Protection Agency (U.S. EPA) tasked the Ecology and Environment, Inc. (E & E), Superfund Technical Assessment and Response Team (START) to assist U.S. EPA On-Scene Coordinator (OSC) Mark Durno in performing a site assessment at the Windham Alloys (WA) site in Windham, Portage County, Ohio. START was requested under Technical Direction Document (TDD) number S05- 9908-004 to prepare and implement a health and safety plan, compile and review existing background information, obtain a subcontractor to complete clearing and grubbing activities at the site, conduct a geophysical survey, determine the extent of contamination, perform sampling, document on-site activities, and evaluate threats to human health and the environment posed by the site. Under direction of OSC Durno, site assessment activities were conducted from August 9, 1999, to September 2, 1999.

2. Site Background

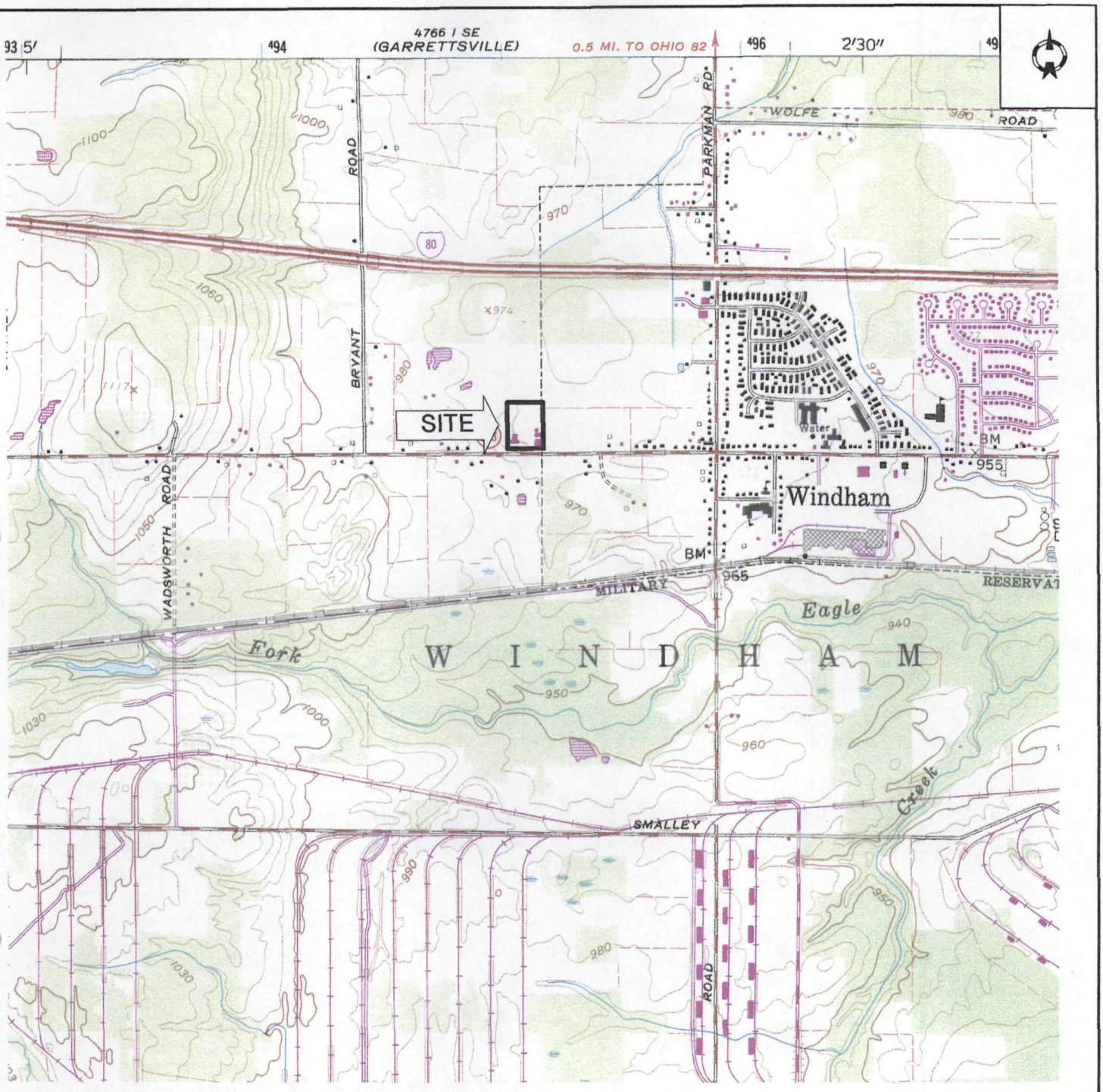
2.1 Site Description

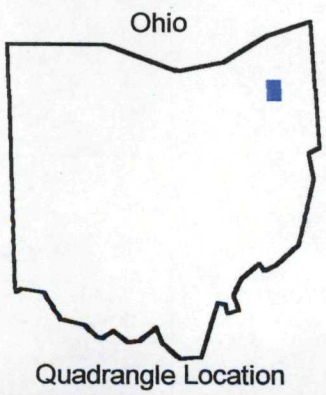
The WA site is located at 9215 Center Street (State Route 303) in Windham, Portage County, Ohio (Figure 2-1). The geographical coordinates for the site are latitude 41°14.1'48"N and longitude 81°3.5'45"W. The WA site consists of an unfenced parcel of land located to the immediate north of the former WA manufacturing facility. The WA site is bordered to south by the former WA manufacturing facility and State Route 303, to the west and east by unnamed drainage ditches, and to the north by wetlands and undeveloped land (Figure 2-2). The area of concern at the site is the unfenced northern portion of the site where waste materials were reported to have been illegally disposed. Other site features include two site drainage ditches (site ditches) that originate at the northern end of the manufacturing facility and interconnect with the eastern unnamed drainage ditch at the northern end of the site. In addition, the WA site is located approximately 400 feet to the west of the public drinking water well field that is used by the Village of Windham.

2.2 Site History

The WA site is the location of a former metal molding and manufacturing facility. The portion of the site that housed the former molding and manufacturing operations is currently for sale by the property owner. A small business currently rents and occupies one of the on-site buildings.

In 1995, the Ohio Environmental Protection Agency (Ohio EPA) began investigating the site as a result of anonymous referrals of illegal waste handling activities being conducted at the site. A company named Extrusions and Alloys, Inc., operated their business at the property under





Quadrangle Location

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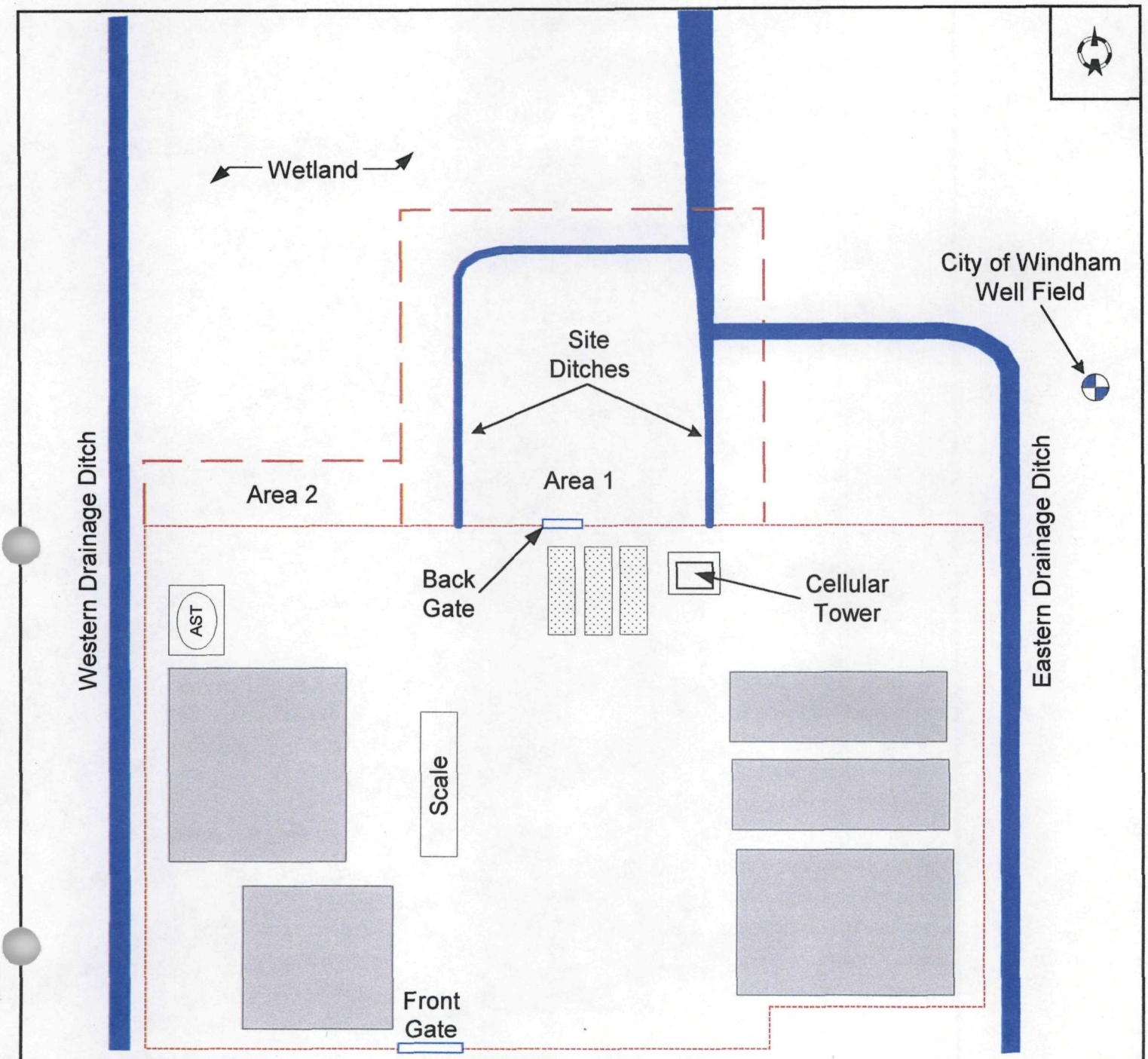
TITLE	Site Location Map			FIGURE	2-1
SITE	Windham Alloys Site			TDD	S05-9908-004
CITY	Windham	STATE	Ohio	SCALE	1:24,000
SOURCE	USGS 7.5 Minute Series, Windham Quadrangle			DATE	1959 Photorevised 1979



Legend

- Tractor Trailers
- Manufacturing Buildings
- Site Fencing
- Site Assessment Boundary

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TITLE	Site Features Map	FIGURE	2-2
SITE	Windham Alloys Site	TDD	S05-9908-004
CITY	Windham STATE Ohio	SCALE	Not to Scale
SOURCE	Ecology and Environment, Inc.	DATE	1999

a lease agreement with the property owner, Mr. Tony Rubino. Mr. Rubino is the current property owner. In 1996, after inspecting the facility, Ohio EPA noted no violations at the site.

In March of 1998, continued reports of illegal dumping at the site prompted Ohio EPA to continue their investigation. The suspected waste materials that were illegally dumped included lead dross, a by product of lead smelting and chromic acid, which was used to clean metal prior to melting it. Following a request to conduct a site assessment, Ohio EPA was denied access to the property by Mr. Rubino. Ohio EPA then obtained a court order to conduct a site assessment of the site.

On November 24 and 25, 1998, Ohio EPA conducted exploratory test trench excavations at the site. During the test trenching, Ohio EPA excavated over one hundred 5-gallon waste containers and a few 55-gallon waste containers. Ohio EPA collected 21 samples from the contents of the buried waste containers. Seventeen of the 21 samples were analyzed by the toxicity characteristic leaching procedure (TCLP) method. In each of those 17 samples, lead, chromium, and/or another hazardous substance was detected. More significantly, lead and/or chromium levels in 15 of those 17 samples exceeded the Resource Conservation and Recovery Act (RCRA) regulatory limits for TCLP lead and chromium of 5.0 milligrams per liter (mg/L), above which solid waste is determined to be a hazardous waste. In particular, TCLP lead was detected in 9 of the 17 samples at levels ranging from 4,300 mg/L to 2.6 mg/L, with 7 samples having levels exceeding the RCRA regulatory limit; and TCLP chromium was detected in 11 of the 17 samples at levels of ranging from 1,400 mg/L to 1.2 mg/L, with 9 samples having levels exceeding the RCRA regulatory limit. TCLP lead and chromium analytical sample results from the Ohio EPA are reported in Section 4 of this report.

On December 15, 1998, Ohio EPA ordered the property owner, Mr. Rubino, to remove the buried hazardous materials from the ground. Mr. Rubino replied to Ohio EPA's order and indicated that he was not responsible for the waste and that the management of Extrusions and Alloys, Inc., should be further investigated. On April 28, 1999, Ohio EPA requested U.S. EPA's assistance in pursuing a clean-up of the Windham Alloys site. Ohio EPA believes that anywhere from 700 to 2,700 containers were buried close to the ground surface. Of further concern are the City of Windham's drinking water well field, located within 400 feet of the buried waste. On

a lease agreement with the property owner, Mr. Tony Rubino. Mr. Rubino is the current property owner. In 1996, after inspecting the facility, Ohio EPA noted no violations at the site.

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August 5, 1999, U.S. EPA obtained an administrative warrant to conduct site assessment activities at the WA site.

3. Site Assessment

3.1 Site Reconnaissance

On August 9, 1999, START members Wade Balser and Kelly Smith, and OSC Durno met with Ohio EPA representative Ron Fodo at the Ohio EPA Northwest District Office to discuss the results of the November 25 and 26, 1999, Ohio EPA site assessment. After the meeting, OSC Durno and START traveled to the WA site to conduct an initial site reconnaissance of the site. During the site reconnaissance, OSC Durno and START completed a site walkthrough and conducted photograph and videotape documentation. After the site walkthrough, OSC Durno and START developed a site assessment plan which included: obtaining a subcontractor to conduct clearing and grubbing of the site; completing a geophysical survey of the site; and conducting surficial soil and sediment sampling after the completion of clearing and grubbing activities.

3.2 Clearing and Grubbing Activities

On August 18, 1999, START completed a pre-bid meeting at the WA site with potential clearing and grubbing subcontractors. On August 30, 1999, START along with its subcontractor completed the clearing and grubbing of the WA site. Two interconnected areas with approximate dimensions of 165 feet (ft) by 250 ft (Area 1) and 130 ft by 30 ft (Area 2) were cleared in preparation of the geophysical survey. During site clearing and grubbing activities, the site drainage ditches were not disturbed and remained in their original condition.

3.3 Geophysical Survey

On August 31, 1999, START set up a grid system over the two interconnected areas (Areas 1 and 2). The grid system was established to accurately map the site during the

geophysical survey. In Area 1, the grid lines were spaced at 5 ft intervals west to east and at 50 ft intervals south to north. In Area 2, the grid lines were spaced at 15 ft intervals west to east and 10 ft intervals south to north. In both areas, the grid system originated at approximately 6 ft from the northern fence line surrounding the former manufacturing facility. Wooden stakes were placed at each grid intersection point and each alternating grid line was marked with high-visibility spray paint.

On September 2, 1999, START member Joe Parish completed a geophysical survey of the WA site. The geophysical survey was conducted using an EM61 Buried Metal Detector (EM61). The EM61 consists of a portable coincident loop time-domain transmitter and receiver, with an additional receiver for depth-to-target estimations and rejection of near surface target response. The EM61 transmitter generates 150 EM pulses per second, and measures target response during the off-time between pulses. After each pulse, secondary EM fields are induced briefly in moderately conductive earth, and for a longer time in metallic targets. The EM61 waits until the earth response dissipates, and then measures the prolonged buried metal response.

EM61 measurements were collected over and between the north/south lines in Area 1 and the west/east lines in Area 2. The EM61 collected measurements at approximately every 20 centimeters. The survey area covered approximately 45,150 square feet (ft^2).

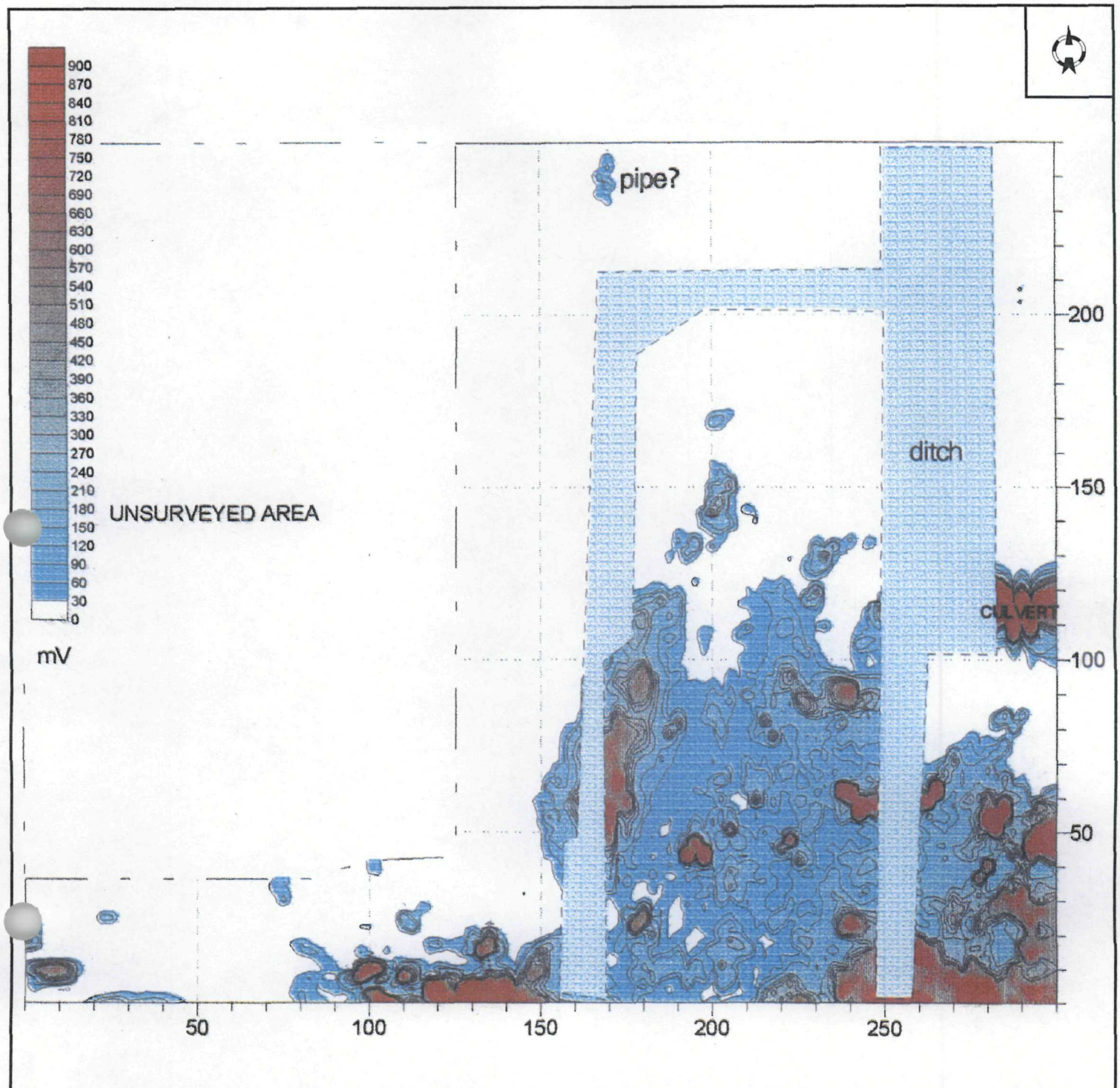
The geophysical survey confirmed the presence of buried metal over approximately 31 percent (14,000 ft^2) of the site. Detected buried metal concentrations ranged from 930 millivolts to non-detect. The locations of detected buried metal along with the corresponding metal concentrations are presented on Figure 3-1.

The START geophysical survey confirmed the likelihood that drums or containers are buried on site.

3.4 Surficial Soil and Sediment Sampling

On September 2, 1999, START collected surficial soil and sediment samples in order to further determine the on-site distribution of contamination.

START selected six random locations for the collection of surficial soil samples. Four samples were collected in Area 1 (between the two site ditches); one sample was collected on the



Legend

0 10 20 30 40
Feet

mV = Millivolts

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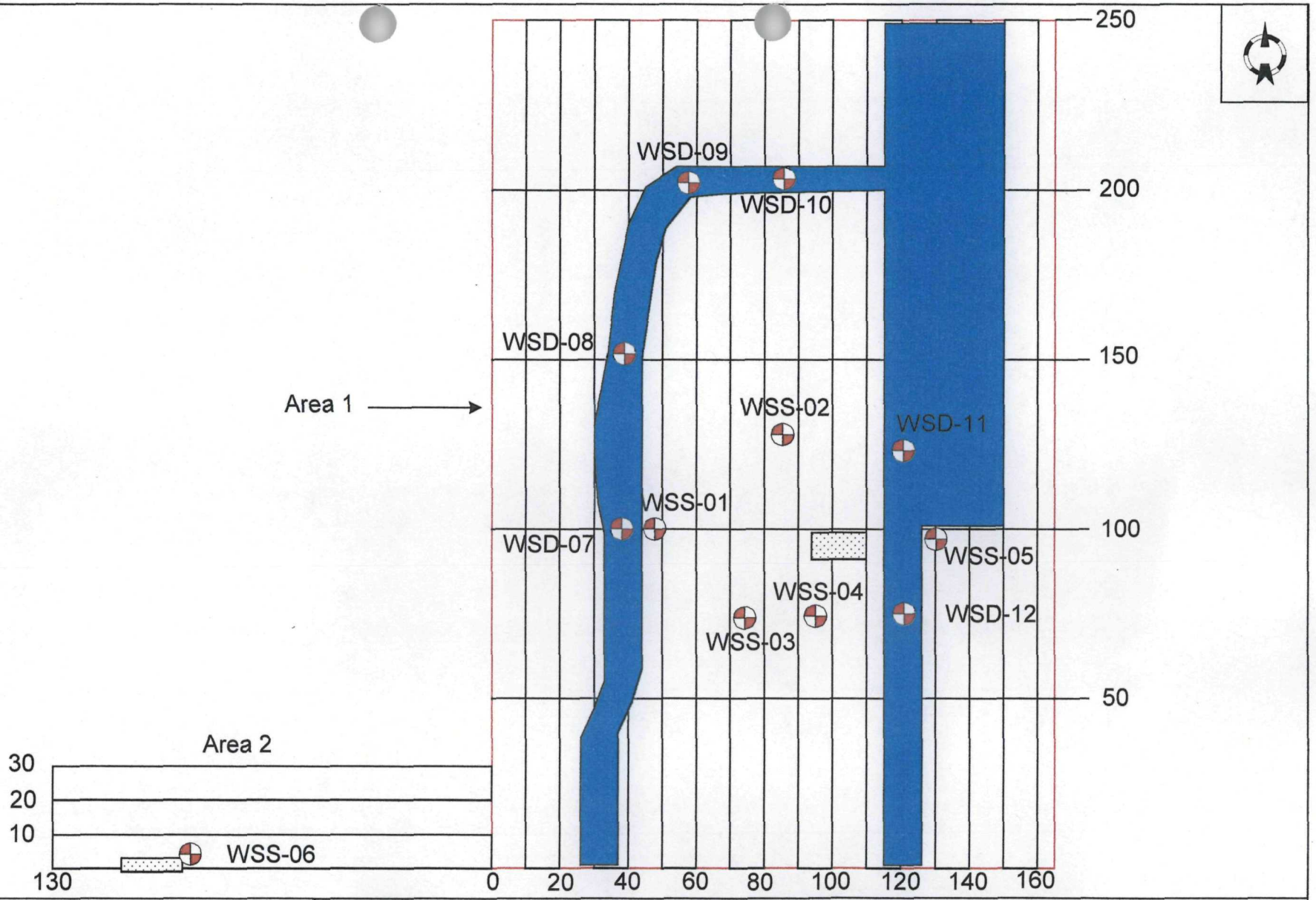
TITLE	Map of START Geophysical Survey Results	FIGURE	3-1
SITE	Windham Alloys Site	TDD	S05-9908-004
CITY	Windham STATE Ohio	SCALE	Shown in feet
SOURCE	Ecology and Environment, Inc.	DATE	1999

eastern side of Area 1; and one sample was collected from Area 2. Six random locations were also identified for the collection of sediment samples in the site drainage ditches. Two sediment samples were collected in each portion (western, northern, and eastern) of the site ditches. The approximate sample locations for the surficial soil and sediment samples collected by START are presented in Figure 3-2.

The 12 samples were collected and shipped to EIS Analytical Services, Inc., in South Bend, Indiana, under TDD number S05-9908-819, for TCLP lead, TCLP chromium, and corrosivity laboratory analysis. Analytical sample results are reported in Section 4 of this report.



Legend

- Sample Location
- Rubble Pile
- Site Drainage Ditch

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TITLE	Map of START Sample Locations			FIGURE	3-2
SITE	Windham Alloys			TDD	S05-9908-004
CITY	Windham	STATE	Ohio	SCALE	Shown in feet
SOURCE	Ecology and Environment, Inc.			DATE	1999

4. Analytical Results

4.1 Surficial Soil Samples

The six surficial soil samples submitted for TCLP analysis indicated the presence of lead at concentrations ranging from 27.2 mg/L to less than (<) 0.05 mg/L and chromium at concentrations ranging from 0.09 mg/L to <0.01 mg/L. In particular, two samples exceeded the RCRA regulatory limits for TCLP lead at 5.0 mg/L. Lead concentrations in these two samples were 27.2 mg/L and 10.2 mg/L, respectively. Analytical results for corrosivity analysis ranged from 7.5 standard units (S.U.) to 5.3 S.U. Surficial soil sample results are presented in Table 4-2.

4.2 Sediment Samples

The six sediment samples submitted for TCLP analysis indicated the presence of lead at concentrations ranging from 0.30 mg/L to 0.06 mg/L and chromium at concentrations ranging from 0.07 mg/L to <0.01 mg/L. Analytical results for corrosivity analysis ranged from 6.8 S.U. to 6.4 S.U. Sediment sample results are presented in Table 4-2.

Table 4-1

OHIO EPA TCLP LEAD AND CHROMIUM SAMPLE RESULTS
WINDHAM, PORTAGE COUNTY, OHIO
November 24 and 25, 1998

Sample Number	Sample Description	Parameter	
		TCLP Lead (mg/L)	TCLP Chromium (mg/L)
WA02	Solid Waste	**5.5**	<0.20
WA03	Solid Waste	<1.0	<0.20
WA04	Solid Waste	<1.0	<0.20
WA06	Solid Waste	3.2	<0.20
WA07	Solid Waste	2.5	<0.20
WA08	Solid Waste	**8.1**	<0.20
WA09	Solid Waste	**4,300**	1.2
WA10	Solid Waste	<1.0	**31**
WA11	Solid Waste	<1.0	**1,100**
WA12	Solid Waste	**79**	2.8
WA13	Solid Waste	<1.0	**15**
WA14	Solid Waste	**46**	**290**
WA17	Solid Waste	**1,200**	**57**
WA18	Solid Waste	<1.0	**1,400**
WA19	Liquid Waste	<1.0	**660**
WA20	Solid Waste	**25**	**11**
WA21	Solid Waste	<1.0	**56**

Key: TCLP = Toxicity characteristic leaching procedure.
mg/L = Milligrams per liter.
< = Less than.

Source: Samples analyzed by Quanterra Incorporated, located in North Canton, Ohio.

Table 4-2

START SURFICIAL SOIL AND SEDIMENT SAMPLE RESULTS
WINDHAM, PORTAGE COUNTY, OHIO
September 2, 1999

Sample Number	Sample Description	Parameter		
		TCLP Lead (mg/L)	TCLP Chromium (mg/L)	Corrosivity (S.U)
WSS-01	Surficial Soil	1.66	0.09	7.0
WSS-02	Surficial Soil	**10.2**	<0.01	7.0
WSS-03	Surficial Soil	2.37	0.03	7.2
WSS-04	Surficial Soil	**27.2**	<0.01	7.1
WSS-05	Surficial Soil	<0.05	<0.01	5.3
WSS-06	Surficial Soil	0.24	<0.01	7.5
WSD-07	Sediment	0.07	0.05	6.4
WSD-08	Sediment	0.30	0.07	6.8
WSD-09	Sediment	0.10	<0.01	6.8
WSD-10	Sediment	0.18	0.01	6.8
WSD-11	Sediment	0.06	<0.01	6.7
WSD-12	Sediment	0.16	0.01	6.8

Key: TCLP = Toxicity characteristic leaching procedure.
mg/L = Milligrams per liter.
S.U. = Standard units.
< = Less than.

Source: Samples analyzed by EIS Analytical Services, Inc., located in South Bend, Indiana, under TDD number S05-9908-819.

5. Discussion of Potential Threats

Paragraph (b) (2) of 40 Code of Federal Regulations (CFR) 300.415 of the National Contingency Plan lists the factors to be considered when determining the appropriateness of a potential removal action at a site. The following discussion presents a summary of those factors.

- **Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.**

  According to 40 CFR Part 261.24, material analyzed using the TCLP method having lead and chromium concentrations greater than 5.0 mg/L are considered a RCRA hazardous waste.

  During the Ohio EPA site assessment 15 of the samples exceeded RCRA TCLP regulatory limits for lead and chromium at 5.0 mg/L. Seven lead samples with concentrations ranging from 4,300 mg/L to 5.5 mg/L and nine chromium samples with concentrations ranging from 1,400 mg/L to 9 mg/L exceeded the RCRA TCLP regulatory limit. In addition, two of the surficial soil samples collected by START indicated the presence of lead (27.2 mg/L and 10.2 mg/L) at concentrations above RCRA TCLP regulatory limits.

  The WA site is situated in a residential area and is unfenced and easily accessible from the western, northern, and eastern sides of the site. The City of Windham's drinking water well field is located within 400 feet of the buried waste. The area of contamination at the site is situated in a wetland area which makes it attractive to resident wildlife.

- **Actual or potential contamination of drinking water supplies or sensitive ecosystems.**

  During the Ohio EPA site assessment and associated exploratory test trenching activities, approximately one hundred 5-gallon waste containers and a few 55-gallon waste containers were excavated. The containers were found to be in poor condition and releasing their contents into the soil. Samples collected by Ohio EPA from the contents of buried containers indicated the presence of TCLP lead and chromium above RCRA regulatory levels. This potential release of hazardous waste presents a significant risk to the City of Windham's drinking water well field which is located within 400 feet of the

buried waste. Of further concern, the WA site is situated in a wetland area which makes it attractive to resident wildlife.

- **Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.**

  During the Ohio EPA site assessment and associated exploratory test trenching activities, approximately one hundred 5-gallon waste containers and a few 55-gallon waste containers were excavated. The containers were found to be in poor condition and releasing their contents into the soil. Additionally, based on Ohio EPA estimates and from results of the START geophysical survey, several buried waste containers are believed to exist throughout the site. The buried hazardous waste poses a continued threat of release to soils and groundwater.

- **High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate.**

  Two of the surficial soil samples collected by START indicated the presence of lead (27.2 mg/L and 10.2 mg/L) at concentrations above RCRA TCLP regulatory limits. Inclement weather conditions and/or uncontrolled disturbance of the soils by trespassers may cause the off-site migration of lead- and chromium-contaminated dust particles. The WA site is unfenced and situated in a residential area with several source receptors located within a few miles of the site.

- **Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or release.**

  Inclement weather conditions, particularly high temperatures with strong winds or heavy rainfall, may cause the hazardous waste to migrate or be released. In the summer months, the contaminated surface soils at the site will be relatively dry, thus increasing the chance of off-site migration of lead- and chromium-contaminated dust particles due to strong winds. In addition, heavy rainfall may further increase the leachability of the lead and chromium waste to groundwater.

6. Summary

Based on the nature of the hazardous substances on site, the actual or potential exposure pathways to nearby human and animal populations, and the actual or threatened release at the site of a hazardous substance that may pose an imminent and substantial endangerment to public health or welfare or to the environment, the WA site warrants a U.S. EPA emergency response action.

This evidence is accurately demonstrated by the analytical results from the samples collected by the Ohio EPA during the November 24 and 25, 1998, site assessment; analytical results from the surficial soil samples collected by START on September 2, 1999; and the findings of the September 2, 1999, geophysical survey.

Appendix A

Photograph Documentation

Site: Windham Alloys **TDD:** S05-9908-004 **PAN:** 9G0401SIXX **Photo:** 1
Direction: North **Date:** 11-25-98 **Photographer:** Ohio EPA
Description: View of waste materials excavated by Ohio EPA during exploratory test trenching and investigation activities.

Site: Windham Alloys **TDD:** S05-9908-004 **PAN:** 9G0401SIXX **Photo:** 2
Direction: East **Date:** 11-25-98 **Photographer:** Ohio EPA
Description: View of track hoe excavating buried waste materials at the site during the Ohio EPA site investigation.

Site: Windham Alloys **TDD:** S05-9908-004 **PAN:** 9G0401SIXX **Photo:** 3
Direction: North **Date:** 08-30-99 **Photographer:** W. Balser
Description: View of START subcontractor completing clearing and grubbing activities at the site.

Site: Windham Alloys **TDD:** S05-9908-004 **PAN:** 9G0401SIXX **Photo:** 4
Direction: East **Date:** 08-31-99 **Photographer:** W. Balser
Description: View of START grid system located in Area 2.

Site: Windham Alloys **TDD:** S05-9908-004 **PAN:** 9G0401SIXX **Photo:** 5
Direction: Northeast **Date:** 08-31-99 **Photographer:** W. Balser
Description: Overview of the START grid system located in Area 1 and site ditches shown with vegetation cover.

Site: Windham Alloys **TDD:** S05-9908-004 **PAN:** 9G0401SIXX **Photo:** 6
Direction: Northwest **Date:** 09-02-99 **Photographer:** W. Balser
Description: View of START conducting a geophysical survey of the site with the EM61 unit.

Appendix B

Analytical Data Memorandum

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Chicago, Illinois 60602
Tel. 312/578-9243, Fax: 312/578-9345

MEMORANDUM

DATE: October 19, 1999

TO: Wade Balser, START Project Manager, E & E, Cleveland, Ohio

FROM: David A. Ikeda, Chemist, E & E, Seattle, Washington

THROUGH: Dave Hendren, START Analytical Services Manager, E & E, Chicago, Illinois

SUBJECT: Inorganic Data Quality Review for Toxicity Characteristic Leaching Procedure (TCLP) Metals (Cadmium and Lead), Windham Alloys Windham, Portage County , Ohio.

REFERENCE: Project TDD S05-9908-004 Analytical TDD S05-9908-819
Project PAN 9G0401SIXX Analytical PAN 9GAS01TAXX

The data quality assurance (QA) review of 12 solid samples collected from the Windham Alloys site is complete. The samples were collected on September 2, 1999, by the Superfund Technical Assessment and Response Team (START) contractor, Ecology and Environment, Inc. (E & E). The samples were submitted to EIS Analytical Services, Inc. South Bend, Indiana for analyses. The laboratory analyses were performed according to the U.S. EPA Solid Waste 846 Method 1311 for TCLP extraction and Method 6010 for lead and cadmium analysis.

Sample Identification

START Identification No.	Laboratory Identification No	START Identification No.	Laboratory Identification No
WSS-01	62829	WSD-07	62835
WSS-02	62830	WSD-08	62836
WSS-03	62831	WSD-09	62837
WSS-04	62832	WSD-10	62838
WSS-05	62833	WSD-11	62839
WSS-06	62834	WSD-12	62840

Data Qualification:

I. Sample Holding Time: Acceptable

The samples were collected on September 2, 1999; extracted on September 8, 1999; and analyzed on September 14, 1999. This is within the six month holding time.

II. Calibration:

• Initial Calibration: Acceptable

Percent recovery values for the initial calibration verification were within 90 to 110%, as required.

• Continuing Calibration: Acceptable

Percent recovery values for analytes in the continuing calibration verification standard were within 90 to 110%, as required.

III. Blanks: Acceptable

Preparation blanks were analyzed with each analytical batch. No target analytes were detected in the blanks above the reporting limit. At least one blank was analyzed for each 20 samples.

IV. Interference Check Samples (ICSs): Acceptable

ICSs were analyzed and recoveries were within 20% of the mean value, as required. The ICS was only analyzed at the beginning of the analysis as required by SW-846.

V Additional QC Information: Acceptable

The laboratory control sample (LCS); matrix spike (MS) samples and matrix spike duplicate (MSD) samples; serial dilution (SD); and other QC sample analysis were within laboratory or method control limits.

I-V. Assessment of Data for Use: Acceptable

The overall usefulness of the data is based on criteria for QA Level II as outlined in the Office of Solid Waste and Emergency Response (OSWER) Directive 9360.4-01 (April 1990) Data Validation Procedures, Section 3.0, Metallic Inorganic Parameters. Based upon the information provided, the data are acceptable for use.

SAMPLE RESULTS

Client Name: Ecology & Environment, Inc.
Client Project: SO5-9908-004

Report Date: 9/20/99
EIS Order No: 990900061

EIS Lab Number	Client Description	Sample Date	Parameter	Result	Units	SDL	Test Date	Analyst	Meth
062829	WSS-01	9/2/99	Chromium,TCLP	0.09	mg/L	0.01	9/14/99	ShaneD	6010
		9/2/99	Corrosivity	7.0	SU	1	9/9/99	LozanoS	9045 C
		9/2/99	Lead,TCLP	1.66	mg/L	0.05	9/14/99	ShaneD	6010
062830	WSS-02	9/2/99	Chromium,TCLP	<0.01	mg/L	0.01	9/14/99	ShaneD	6010
		9/2/99	Corrosivity	7.0	SU	1	9/9/99	LozanoS	9045 C
		9/2/99	Lead,TCLP	10.2	mg/L	0.05	9/14/99	ShaneD	6010
062831	WSS-03	9/2/99	Chromium,TCLP	0.03	mg/L	0.01	9/14/99	ShaneD	6010
		9/2/99	Corrosivity	7.2	SU	1	9/9/99	LozanoS	9045 C
		9/2/99	Lead,TCLP	2.37	mg/L	0.05	9/14/99	ShaneD	6010
062832	WSS-04	9/2/99	Chromium,TCLP	<0.01	mg/L	0.01	9/14/99	ShaneD	6010
		9/2/99	Corrosivity	7.1	SU	1	9/9/99	LozanoS	9045 C
		9/2/99	Lead,TCLP	27.2	mg/L	0.05	9/14/99	ShaneD	6010
062833	WSS-05	9/2/99	Chromium,TCLP	<0.01	mg/L	0.01	9/14/99	ShaneD	6010
		9/2/99	Corrosivity	5.3	SU	1	9/9/99	LozanoS	9045 C
		9/2/99	Lead,TCLP	<0.05	mg/L	0.05	9/14/99	ShaneD	6010
062834	WSS-06	9/2/99	Chromium,TCLP	<0.01	mg/L	0.01	9/14/99	ShaneD	6010
		9/2/99	Corrosivity	7.5	SU	1	9/9/99	LozanoS	9045 C
		9/2/99	Lead,TCLP	0.24	mg/L	0.05	9/14/99	ShaneD	6010
062835	WSD-07	9/2/99	Chromium,TCLP	0.05	mg/L	0.01	9/14/99	ShaneD	6010
		9/2/99	Corrosivity	6.4	SU	1	9/9/99	LozanoS	9045 C
		9/2/99	Lead,TCLP	0.07	mg/L	0.05	9/14/99	ShaneD	6010
062836	WSD-08	9/2/99	Chromium,TCLP	0.07	mg/L	0.01	9/14/99	ShaneD	6010
		9/2/99	Corrosivity	6.8	SU	1	9/9/99	LozanoS	9045 C
		9/2/99	Lead,TCLP	0.30	mg/L	0.05	9/14/99	ShaneD	6010
062837	WSD-09	9/2/99	Chromium,TCLP	<0.01	mg/L	0.01	9/14/99	ShaneD	6010
		9/2/99	Corrosivity	6.8	SU	1	9/9/99	LozanoS	9045 C
		9/2/99	Lead,TCLP	0.10	mg/L	0.05	9/14/99	ShaneD	6010
062838	WSD-10	9/2/99	Chromium,TCLP	0.01	mg/L	0.01	9/14/99	ShaneD	6010
		9/2/99	Corrosivity	6.8	SU	1	9/9/99	LozanoS	9045 C
		9/2/99	Lead,TCLP	0.18	mg/L	0.05	9/14/99	ShaneD	6010
062839	WSD-11	9/2/99	Chromium,TCLP	<0.01	mg/L	0.01	9/14/99	ShaneD	6010
		9/2/99	Corrosivity	6.7	SU	1	9/9/99	LozanoS	9045 C
		9/2/99	Lead,TCLP	0.06	mg/L	0.05	9/14/99	ShaneD	6010

SAMPLE RESULTS

Client Name: Ecology & Environment, Inc.
Client Project: SO5-9908-004

Report Date: 9/20/99
EIS Order No: 990900061

EIS Lab Number	Client Description	Sample Date	Parameter	Result	Units	SDL	Test Date	Analyst	Meth
062840	WSD-12	9/2/99	Chromium,TCLP	0.01	mg/L	0.01	9/14/99	ShaneD	6010
		9/2/99	Corrosivity	6.8	SU	1	9/9/99	LozanoS	9045 C
		9/2/99	Lead,TCLP	0.16	mg/L	0.05	9/14/99	ShaneD	6010